

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-20 (canceled)

Claim 21 (currently amended): A high efficiency switching amplifier amplifying a reference input signal, for digitally processing electric power from a direct current supply thereof to a loudspeaker which has a positive terminal and a negative terminal, the switching amplifier comprising:

a first transformer-isolated switching power converter comprising a first power-transferring transformer and bi-directional switches for supplying a first voltage proportional to the reference input signal to the positive terminal of the loudspeaker when the amplitude of the reference input signal is positive;

a second transformer-isolated switching power converter comprising a second power-transferring transformer and bi-directional switches for supplying a second voltage proportional to the reference input signal to the negative terminal of the loudspeaker when the amplitude of the reference input signal is negative; and

a pulse-width ~~modulated~~ modulation controller for controlling the operation of the bi-directional switches of the first and second transformer-isolated switching power converters in such a manner that when the first transformer-isolated switching power converter is active during the positive portion of the reference input signal, the bi-directional switches of the second isolated switching power converter provide a return path for the first transformer-isolated switching power converter's current to and from the loudspeaker and when the second transformer-isolated switching power converter is active during the negative portion

of the reference input signal, the bi-directional switches of the first transformer-isolated switching power converter provide a return path for the second transformer-isolated switching power converter's current to and from the loudspeaker.

Claim 22 (currently amended): The high efficiency switching amplifier of claim 21 wherein the bi-directional switches of the first and second transformer-isolated switching power converters are metal-oxide-semiconductor field-effect transistors.

Claim 23 (currently amended): The high efficiency switching amplifier of claim 21 wherein the first and second transformer-isolated switching power converters are selected from a group of converters comprising ~~a buck converter~~, a forward converter, a push-pull converter, a half-bridge converter, an asymmetrical half-bridge converter, and a full-bridge converter.

Claim 24 (canceled)

Claims 25-39 (canceled)

Claim 40 (new): The high efficiency switching amplifier of claim 21, wherein the first power-transferring transformer comprises a first primary winding and a first secondary winding, wherein the second power-transferring transformer comprises a second primary winding and a second secondary winding, and wherein the bi-directional switches coupled to the first and second secondary windings share a ground reference.

Claim 41 (new): The high efficiency switching amplifier of claim 40, wherein the loudspeaker is configured to be coupled to the first and second secondary windings.

Claim 42 (new): The high efficiency switching amplifier of claim 21, wherein the first power-transferring transformer comprises a first primary winding and a first secondary winding, wherein the second power-transferring transformer comprises a second primary winding and a second secondary winding, and wherein a node coupled to the first and second secondary windings is without a direct current voltage with reference to a ground reference.

Claim 43 (new): The high efficiency switching amplifier of claim 21, wherein a voltage associated with the direct current supply is modulated by the reference input signal and transmitted to the loudspeaker through the first and second power-transferring transformers without being converted into a direct current voltage.

Claim 44 (new): The high efficiency switching amplifier of claim 21, wherein a direct current does not flow to the positive and negative terminals of the loudspeaker.

Claim 45 (new): The high efficiency switching amplifier of claim 21, wherein the first power-transferring transformer is configured to electrically isolate the first transformer-isolated switching power converter from the second transformer-isolated switching power converter.

Claim 46 (new): The high efficiency switching amplifier of claim 21, wherein the second power-transferring transformer is configured to electrically isolate the second

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transformer-isolated switching power converter from the first transformer-isolated switching power converter.

INTERVIEW SUMMARY UNDER 37 CFR §1.133 AND MPEP §713.04

A telephone interview in the above-reference case was conducted on January 26, 2006 between the Examiner and the Applicant's undersigned representative. The final office action mailed on November 30, 2005 was discussed. Specifically, the rejections of claims 21-24 in view of U.S. Patent No. 6,762,645 to Grant, U.S. Patent No. 6,388,514 to King et al., and U.S. Patent No. 4,959,764 to Bassett, and the proposed amendments set forth herein were discussed with the intent to place the claims in better condition for allowance or appeal. The Applicant wishes to thank the Examiner for his time and attention in this case.